

ABSTRACT

A interrogator 1 specifies the maximum read range (S_0, e_0) in which IDs to be read may exist (Step S1), and the interrogator 1 transmits a read request command to transponders 2 (Step S2. When there is/are a response/responses, it is judged if the response(s) is/are from a single transponder 2 or multiple transponders 2 (Step S5). When identifying multiple responses, an exponent e of the read range (S, e) is updated to $e'=e-1$ (Step S6). When identifying a single response, ID of the transponder 2 that responded is read out (Step S8) and the start S of the read range (S, e) is updated to $S'=S+d (=2^e)$ (Step S9). When a previous response flag F is not set to “multiple responses received”, the exponent e of the read range (S, e) is updated to $e'=e+1$ (Step S13).